

Certificate of Analysis

ZoBell's Solution, Oxidation-Reduction Potential (ORP) Standard

Lot Number: 2311M14

Product Number: 9880

Manufacture Date: NOV 29, 2023

Expiration Date: AUG 2024

Using this ORP Solution the potentials at 25.0 °C of a Platinum Electrode vs. a Silver/Silver Chloride Reference Electrode should be as follows when using the corresponding ORP Electrode Filling Solution saturated with Silver Chloride: + 192 millivolts (Potassium Chloride, 1.00 Molar); + 228 millivolts (Potassium Chloride, 4.00 Molar); +229 millivolts (Potassium Chloride, Saturated). When using a Calomel Reference Electrode, the potential should be +183 millivolts using a saturated Potassium Chloride filling Solution. Using a Hydrogen Reference Electrode, the potential should be +428 millivolts.

Name	CAS#	Grade
Water	7732-18-5	ACS/ASTM/USP/EP
Potassium Chloride	7447-40-7	ACS
Potassium Ferrocyanide Trihydrate	14459-95-1	ACS
Potassium Ferricyanide	13746-66-2	ACS

Test	Specification	Result
Appearance	Yellow-green liquid	Passed
Oxidation-Reduction Potential (ORP)	218-238 mV at 25°C	238 mV at 25°C

Specification	Reference
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ZoBell's solution

APHA (2580 B)

Volumetric glassware complies with Class A tolerance requirements of ASTM E 288 and NIST Circular 434; it is calibrated before first use and recalibrated regularly in accordance with ASTM E 542 and NIST Procedure NBSIR 74-461. Balances are calibrated regularly with weights certified traceable to the NIST national mass standard. Thermometers and temperature probes are calibrated before first use and recalibrated regularly with a thermometer traceable to NIST standards. All products are prepared according to master documents that assure manufacture according to validated methods. Batch records document raw material traceability and production and testing history for each lot manufactured.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
9880-1	4 L black poly	9 months
9880-16	500 mL amber poly	9 months
9880-32	1 L amber poly	9 months

Recommended Storage: 2°C - 8°C (36°F - 46°F)



Jose Pena (11/29/2023)

Operations Manager

This document is designed to comply with ISO Guide 31 "Reference Materials --
Contents of Certificates and Labels."

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